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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,358	01/22/2004	Shin Koike	247071USDIV	3263

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EXAMINER
RAE, CHARLESWORTH E

ART UNIT	PAPER NUMBER
1611	

NOTIFICATION DATE	DELIVERY MODE
09/17/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/761,358	KOIKE ET AL.	
	Examiner	Art Unit	
	CHARLESWORTH RAE	1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-13 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-13 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

- ***DETAILED ACTION***

Applicant's arguments, filed 06/03/08, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of actions being applied to the instant application.

This action is made final. The new basis of rejection is necessitated by the claim amendment narrowing the scope of the claims.

Status of the Claims

Claims 6-13 and 23 are currently pending in this application.

Claim Amendment

Claim 1 as amended recites "**1-80 wt. % of** an oil composition and food …"

Response to applicant's arguments/remarks

Rejection under 112, 2nd paragraph

This rejection is withdrawn in view of the claim amendment.

Rejections under 103(a)

Applicant contends that these rejections should be withdrawn for essentially the following summarized reasons (see applicant's Response, received 6/3/08, at pages 4-10):

1) None of the cited references disclose or suggest the instant claimed invention.

2) Applicant's have discovered that an oil composition comprising triglyceride, diglyceride and monoglyceride, wherein said digylceride has a distribution of omega-3

unsaturated fatty acids and monoenoic acyl groups provide for an oil composition having good stability and viscosity, which is not disclosed or suggested by the cited references.

In response, this rejection is withdrawn in view of the claim amendment.

REJECTIONS

Claim rejections – 35 USC 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6, 7, 9, 10, 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasukawa et al. (US Patent 4,976,984), in view of Igarashi (US Patent 6,159,507), and in further view of Tanaka et al. (US Patent 5,178,897).

Claim 6 recites "[a] food product, comprising: 1 to 80 wt. % of an oil composition and food, based on a weight of said food product; wherein the oil composition, comprises, 0.1 to 59.8% by weight of a triglyceride, about 40 to 99.7% by weight of a diglyceride, 0.1 to 10% by weight of a monoglyceride, and at most about 5% by weight of a free fatty acid, based on a weight of said oil composition wherein a content of omega-3 unsaturated acyl groups having at least 20 carbon atoms and monoenoic acyl groups constituting the diglyceride are about 15 to 89.5% by weight and about 10 to 84.5% by weight, respectively, based on a weight of acyl groups in said diglyceride. Claim 7 recites "wherein the food product is a salad dressing." Claim 9 recites "wherein the food product is a mayonnaise." Claim 10 recites "wherein the food product is creamy." Claim 11 recites "wherein the food is a baked food." Claim 23 recites "[t]he food product of claim 6 prepared by combining food with an oil composition ..."

Yasukawa et al. (US Patent 4,976,984) teach an edible oil and fat composition comprising a phospholipid and a glyceride mixture, wherein the phospholipid is present in 0.1 to 30% by weight of the composition, which is stable and suitable for use in foods and cooking oils, and the glyceride mixture is present in 20 to 99.9% by weight of the

composition, wherein the glyceride mixture comprises 5 to 100% by weigh of a diglyceride (i.e. overlaps with about 40 to 99.7%), and wherein the glyceride mixture comprises monoglycerides, diglycerides and triglycerides, and wherein the aliphatic acid (acyl) moieties in the glycerides have 8 to 24 carbon atoms (i.e. overlaps with 20 carbon atoms omega-3 acyl groups), and preferably wherein the aliphatic acid (acyl) moiety comprises 70 percent by weight, or more, of unsaturated aliphatic acid moieties (i.e. overlaps with 15 to 89.5% by weight of omega-3 unsaturated acyl groups having at least 20 carbon atoms), and preferably wherein the diglycerides contain 40 percent, or less, of diglycerides having unsaturated (i.e. encompass omega-3 acyl groups) and saturated aliphatic acid moieties (i.e. encompass monoenoic acid) and 5 percent by weight or less having two saturated aliphatic acid moieties (= fatty acids; col. 2, line 65 to col. 4, line 11, especially col. 3, line 50 to col. 4, line 9). Yasukawa et al. teach that optionally the diglycerides can contain 40 percent by weight, or more, of diglycerides having unsaturated and saturated aliphatic acid moieties and 5% by weight, or more, of diglycerides having two saturated aliphatic acid moieties (col.4, lines 4-9). Yasukawa et al. also teach that suitable glyceride mixtures include oils and fats having an elevated content of diglycerides obtained either by the interesterification of the mixture of glycerol with at least one oil or fat having a high content of unsaturated fatty acid residues selected from the group consisting of safflower oil, olive oil, cottonseed oil, rapeseed oil, corn oil, soybean oil, palm oil, ..., fish oil, butter, and fractionated, randomized and interesterified oils of them, or by esterification of glycerol with unsaturated fatty acids derived from oils and fats (col. 6, lines 24-38). Yasukawa et al. teach edible oil/fat

compositions for the purpose of improving the preventive effect of burning and sticking, anti-spattering effect, and emulsifying effect for the preparation of dressings or mayonnaises (col. 6, line 63 to col. 7, line 20). Yasukawa et al. exemplify fatty acid composition of diglycerides derived from rapeseed, corn, and soybean (col. 8, including Table 2, and col. 10, including Table 5). Yasukawa et al. exemplify an oil (A) composition comprising 2% monoglyceride (i.e. overlaps with 0.1 to 10%), 80% diglyceride (i.e. overlaps with 40 to 99.7%), 18% triglyceride (i.e. overlaps with 0.1 to 59.8%), and the proportion of unsaturated fatty acids to total fatty acids in the sum of these glycerides of 89.3% (cols. 9-10, reference examples 4 and 5). Yasukawa et al. teach that if the content of diglycerides is smaller than 5% by weight makes the solubility of the phospholipid insufficient, while high content of diglycerides in combination with high content of monoglycerides in the glyceride mixture have a tendency to emit smoke on heating; a suitable content of diglycerides is within the range of 8 to 80% by weight (col. 5, lines 55-61). Yasukawa et al. disclose that unlike diglycerides, monoglycerides, even in low content in oil phase, are involved in emitting much smoke on heating (col. 5, lines 55-68, especially lines 61-66). Although Yasukawa et al. teach digiycerides having unsaturated and saturated aliphatic acid moieties, the Yasukawa et al. reference is silent regarding diglycerides having monoenoic acid acyl groups.

Igarashi (US Patent 6,159,507) is added to show the general state of the art regarding omega-3 fatty acids, such as acids alpha-linolenic acid, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). Igarashi teaches food compositions

comprising an omega-6/omega-3 unsaturated fatty acid balance modifier and at least one unsaturated fatty acid (col. 2, lines 49-53). Iagarashi teaches that although it has been confirmed that various fatty acids such as omega-6 fatty acids (including linoleic acid, dihomo-gamma-linolenic acid, and arachidonic acid) and omega-3 fatty acids (including alpha-linolenic acid, eicosapentaenoic acid and docosahexaenoic acid) exhibit different physiological actions, what is important is that these two series of unsaturated fatty acids mutually have a potent effect on the physiological action of the other, ..., and the ratio of omega-3 and omega-6 unsaturated fatty acids in the body reflects that in the diet (col. 1., lines 31-42). Iagarashi teaches that foods have been developed to which have been added omega-3 unsaturated fatty acids such as EPA and DHA (col. 1, lines 62-66). Igarashi teaches that there is a strong desire to develop a safe substance that suitable adjusts the ratio of omega-6 unsaturated fatty acids and omega-3 unsaturated fatty acids in the body in order to maintain homeostasis of the body as well as prevent disease (col. 2, lines 41-45).

Tanaka et al. (US Patent 5,178,897) is added to show the general state of the art regarding foods comprising monoenoic acid and an emulsifier (e.g. monoglycerides, diglycerides, and lecithin). Tanaka et al. teach water-in-oil emulsion composition for bakery products comprising from 30 to 70% by weight of an oil and fat phase and from 70 to 30% by weight of an aqueous phase containing from 5 to 100% by mole of transmonoenoic acid(s) in the constituting fatty acids (abstract). Tanaka et al. teach that in addition to the trans-unsaturated monoglyceride, the oil/fat phase of the emulsion composition may further contain other emulsifiers, for example, saturated

monoglycerides, diglycerides, sucrose fatty acid esters, sorbitan fatty acid esters, organic acid monoglycerides or lecithin, or mixture of emulsifiers; the chain length of fatty acid constituting the emulsifier is not particularly restricted even though those having 12 to 24 carbon atoms may be generally used (col. 4, lines 16-45).

It is noted that mayonnaise is creamy. Thus, the term "mayonnaise" reads on the term "wherein the food product is creamy".

It would have been obvious to a person of skill in the art at the time the invention was made to add omega-3 acyl groups (e.g. EPA or DHA) as taught by Igarashi and monoenoic acyl groups (e.g. transmonoenoic acid) as taught by Tanaka et al. as constitutents of a diglyceride component of the edible oil and fat composition as taught by Yasukawa et al. to improve its therapeutic effect/disease preventive effects. One would have been motivated to modify the diglyceride component of the edible oil and fat composition taught by Yasukawa et al. because Igarashi et al. teach there is a strong desired to develop a safe substance comprising omega-3 unsaturated fatty acids to maintain homeostasis of the body as wells as prevent disease and Tanaka teach foods comprising diglyceride emulsifying agents, wherein said digyiceride comprise, for example, monoenoic acids One would have expected to successfully add monoenoic acid acyl groups and omega-3 unsaturated acyl groups having at least 20 carbon (e.g. EPA or DHA) to the diglyceride component of the composition taught by Yasukawa et al. because Yasukawa et al. teach that suitable glyceride mixtures include oils and fats having an elevated content of diglycerides obtained either by the interesterification of the mixture of glycerol with at least one oil or fat having a high content of unsaturated

fatty acid residues selected from the group consisting of safflower oil, olive oil, cottonseed oil, rapeseed oil, corn oil, soybean oil, palm oil, ..., fish oil, butter, and fractionated, randomized and interesterified oils of them, or by esterification of glycerol with unsaturated fatty acids derived from oils and fats, which would serve as sources of monoenoic acid acyl groups and omega-3 unsaturated acyl groups having at least 20 carbon (e.g. EPA or DHA) and Iagarashi teaches that foods have been developed to which have been added omega-3 unsaturated fatty acids such as EPA and DHA (col. 1, lines 62-66). Besides, Yasukawa et al., Iagarashi, and Tanaka et al. are concerned with edible oil compositions, wherein said compositions comprise an emulsifing agent(e.g. a diglyceride)

With respect to claim 23, the cited prior art references teach each claimed component of the food product in an amount that overlaps with the instant claimed amounts of the ingredients therein. Hence, the food product as taught be the prior art is capable of performing the intended purpose as a food.

Thus, a person of skill in the art at the time the invention was made would have found it obvious to create the instant claimed invention with reasonable predictability.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasukawa et al. (US Patent 4,976,984), in view of Igarashi (US Patent 6,159,507) and Tanaka et al. (US Patent 5,178,897), in further view of van Nieuwenhuyzen et al. (van Nieuwenhuyzen et al. Effects of lecithins and proteins on the stability of

emulsions. European Journal of Lipid Science and Technology. 28 Jan 1999; 100n (Issue 7):282-291, abstract only).

The above discussions of Yasukawa et al., Igarashi, and Tanaka et al. are incorporated by reference. These references do not teach chocolate.

Claim 12 recites "wherein the food product is a chocolate."

van Nieuwenhuyzen et al. teach that food consists of three components, carbohydrates, proteins and fats, which are linked by various types of chemical and physical bonds (abstract). The interactions at the interface of dispersions and emulsions are influenced by surface-active emulsifiers such as lecithins, which may be modified physically and enzymatically to give a range of food grade emulsifiers with different hydrophilic-lipohilic-balance (HLB) values (abstract). van Nieuwenhuyzen et al. teach that emulsifiers can be distinguished into three groups: lecithins or phospholipids, mono and diglycerides of edible oils and fatty acids, and sucroglycerides (page 282, col. 2, first para.). van Nieuwenhuyzen et al. teach that the principles of combined use of proteins and lecithins are presented for processed foods such as mayonnaise, margarine, instant milk powders, fat reduced cookies, and chocolate coatings for ice cream dipping (abstract).

It would have been obvious to a person of skill in the art to prepare a chocolate food product as taught van Nieuwenhuyzen et al..

One would have been motivated to prepare a chocolate food product comprising a diglyceride comprising monoenoic acid groups and unsaturated acyl groups having at least 20 carbon (e.g. EPA or DHA) because Yasukawa et al. teach a fat/oil composition

that acts as an emulsifier and van Nieuwenhuyzen et al. teach chocolate contains emulsifiers.

Thus, a person of skill in the art at the time the instant invention was made would have found it obvious to create the instant claimed invention with reasonable predictability.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasukawa et al. (US Patent 4,976,984), in view of Igarashi (US Patent 6,159,507) and Tanaka et al. (US Patent 5,178,897), in further view of Szczesniuak et al. (US Patent 3,300,318).

The above discussions of Yasukawa et al., Igarashi and Tanaka et al. are incorporated by reference. These references do not teach wine vinegar.

Claim 8 recites "further comprising a wine vinegar."

Szczesniuak et al. teach a low calorie cream-type salad dressings comprising vegetable oil and an acidifying agent, wherein said acidifying agent may be any type of vinegar, such as a wine vinegar (col. 1, lines 48-71).

It would have been obvious to a person of skill in the art at the time the invention was made to add wine vinegar to the composition as taught by the above cited art in order to adjust the acidity of the composition. One would have been motivated to add wine vinegar to the composition to adjust the acidity of the composition because Szczesniuak et al. teach stable salad dressing comprising edible oil, wherein the addition of an acidifying agent (e.g. wine vinegar) increases the stability of the oil

composition and Yasukawa et al. also teach dressings. Besides, all the cited references teach foods comprising edible oil compositions.

Thus, a person of skill in the art at the time the invention was made would have found it obvious to create the instant claimed invention with reasonable predictability.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasukawa et al. (US Patent 4,976,984), in view of Tanaka et al. (US Patent 5,178,897) and Igarashi (US Patent 6,159,507), in further view Young et al. (US Patent 5,085,884).

The above discussions of Yasukawa et al., Igarashi and Tanaka et al. are incorporated by reference. These references do not teach potato chips.

Claim 13 recites "wherein the food product is a potato chip."

Young et al. (US Patent 5,085,884) teach reduced calorie potato chips wherein a fat composition is applied to the surface of a potato chip (abstract).

It would have been obvious to a person of skill in the art at the time the invention was made to modify the potato chips food product as taught by Young et al. by applying the composition as taught by the cited art in order to improve the nutritional health value of said food product (= potato chips). One would have been motivated to incorporate the fat/oil compositions as taught by Yasukawa et al. because Igarashi teaches that there is a strong desire to develop a safe substance that is suitable to adjust the ratio of omega-6 unsaturated fatty acids and omega-3 unsaturated fatty acids in the body in order to maintain homeostasis of the body as well as prevent disease and Young et al. teach potato chips with reduced calories. It is the examiner's position that a potato chip with reduced calorie would also confer health benefits.

Thus, a person of skill in the art at the time the invention was made would have found it obvious to create the instant claimed invention with reasonable predictability.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlesworth Rae whose telephone number is 571-272-6029. The examiner can normally be reached between 9 a.m. to 5:30 p.m. Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila G. Landau, can be reached at 571-272-0614. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http:pair-direct.uspto.gov. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7 September 2008
/C. R./
Examiner, Art Unit 1611

/Sharmila Gollamudi Landau/

Supervisory Patent Examiner, Art Unit 1611